



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

JANE SWIFT
Governor

BOB DURAND
Secretary

LAUREN A. LISS
Commissioner

CERTIFICATION FOR GENERAL USE
Pursuant to Title 5, 310 CMR 15.000

Name and Address of Applicant:

Bio-Microbics, Inc.
8271 Melrose Drive
Lenexa, KS 66214

Trade name of technology and model: MicroFAST Treatment System Models MicroFAST 0.5, 0.75, 0.9, 1.5, 3.0, 4.5 and 9.0; HighStrengthFAST Treatment System Models HighStrengthFAST 1.0, 1.5, 3.0, 4.5 and 9.0 and NitriFAST Treatment System Models NitriFAST 0.5, 0.75, 1.0, 1.5, 3.0, 4.5 and 9.0 (hereinafter the "System"). A Schematic Drawing illustrating each FAST System is attached and is part of this Certification.

Transmittal Number: W 012530
Date of Issuance: August 13, 2001
Expiration date: August 13, 2006

Authority for Issuance

Pursuant to Title 5 of the State Environmental Code, 310 CMR 15.000, the Department of Environmental Protection hereby issues this Certification for General Use to: Bio-Microbics, Inc., 8450 Cole Parkway, Shawnee, KS 66227 (hereinafter "the Company"), certifying the System described herein for General Use in the Commonwealth of Massachusetts. Sale and use of the System are conditioned on and subject to compliance by the Company and the System owner with the terms and conditions set forth below. Any noncompliance with the terms or conditions of this Certification constitutes a violation of 310 CMR 15.000.

Glenn Haas, Acting Assistant Commissioner
Bureau of Resource Protection
Department of Environmental of Environmental Protection

Date

This information is available in alternate format by calling our ADA Coordinator at (617) 574-6872.

DEP on the World Wide Web: <http://www.state.ma.us/dep>

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Bio-Microbics Certification for General Use MicroFAST, HighStrengthFAST and NitriFAST

I. Purpose

1. The purpose of this Certification is to allow the use of the System in Massachusetts on a General use basis.
2. With the necessary permits and approvals required by 310 CMR 15.000, this Certification authorizes the installation and use of the System in Massachusetts.
3. The System may be installed on all facilities where a system in compliance with 310 CMR 15.000 exists on site or could be built and for which a site evaluations in compliance with 310 CMR 15.000 has been approved by the local approving authority or by DEP if DEP approval is required by 310 CMR 15.000.
4. The System is approved for use at facilities with a maximum design flow less than 10,000 gallons per day (GPD).

II. Design Standards

1. The FAST treatment system (Fixed Activated Sludge Treatment), Models MicroFAST 0.5, 0.75, 0.9 and 1.5, HighStrengthFAST 1.0 and 1.5 and NitriFAST 0.5, 0.75, 0.9 and 1.5 consist of a single tank having a primary settling zone and an aerobic biological zone. Solids are trapped in the primary settling zone where they settle. In the aerobic zone, the bacteria colony attaches itself to the surface of a submerged media bed and feeds on the sewage as it circulates. Models MicroFAST, HighStrengthFAST and NitriFAST 3.0, 4.5, and 9.0 consist of a standard Title 5 septic tank for settling solids and a second tank with the submerged media for aerobic treatment.
2. Models MicroFAST 0.5, 0.75 and 0.9, HighStrengthFAST 1.0 and NitriFAST 0.5, 0.75 and 0.9 shall be installed in the second compartment of a two-compartment septic tank with a total liquid capacity of at least 1,500 gallons. Models MicroFAST, HighStrengthFAST and NitriFAST 1.5 shall be installed in the second compartment of a 3000 gallon tank. The two-compartment septic tank shall be installed between the building sewer and a standard Title 5 Soil Absorption System (SAS) constructed in accordance with 310 CMR 15.100 - 15.279, subject to the provisions of this Approval. Models MicroFAST, HighStrengthFAST and NitriFAST 3.0, 4.5 and 9.0 shall be installed between a septic tank designed in accordance with 310 CMR 15.223 and the SAS.

III. General Conditions

1. The provisions of 310 CMR 15.000 are applicable to the use of this System, except those that specifically have been varied by the terms of this Certification.
2. Any required operation and maintenance, monitoring and testing shall be performed in accordance with a Department approved plan. Any required sample analysis shall be conducted by an independent U.S. EPA or DEP approved testing

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laboratory. It shall be a violation of this Certification to falsify any data collected pursuant to an approved testing plan, to omit any required data or to fail to submit any report required by such plan.

3. The facility served by the System, and the System itself, shall be open to inspection and sampling by the Department and the local approving authority at all reasonable times.
4. In accordance with applicable law, the Department or the local approving authority may require the owner of the System to cease operation of the System and/or to take any other action as it deems necessary to protect public health, safety, welfare or the environment.
5. The Department has not determined that the performance of the System will provide a level of protection to public health and safety and the environment that is at least equivalent to that of a sewer. Accordingly, no System shall be upgraded or expanded, if it is feasible to connect the facility to a sanitary sewer, unless as allowed pursuant to 310 CMR 15.004.
6. Design and installation and use of the System shall be in strict conformance with the Company's DEP approved plans and specifications and 310 CMR 15.000, subject to this Certification.

IV. Conditions Applicable to the System Owner

1. The System is certified in connection with the discharge of sanitary wastewater only. Any non-sanitary wastewater generated or used at the facility served by the System shall not be introduced into the System and shall be lawfully disposed of.
2. Operation and Maintenance agreement:
 - i. Throughout its life, the System shall be under an operation and maintenance (O&M) agreement. No O&M agreement shall be for less than one year.
 - ii. No System shall be used until an O&M agreement is submitted to the local approving authority which:
 - Provides for the contracting of a person or firm competent in providing services consistent with the System's specifications and the operation and maintenance requirements specified by the designer and any specified by the Department;
 - Contains procedures for notification to the Department and to the local board of health within five days of a System failure, malfunction or alarm event and for corrective measures to be taken immediately;

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- Provides the name of an operator, which must be a Massachusetts certified operator as required by 257 CMR 2.00 of an appropriate grade that will operate and monitor the System. The operator must operate and maintain the System at least every six months and anytime there is an alarm event.
- 3. The owner shall notify the Department and the local approving authority, in writing, within seven days of a change in the operator.
- 4. The owner of the System shall at all times have the System properly operated and maintained in accordance with the Company's and the designer's operation and maintenance requirements and this Certification.
- 5. The owner of the System shall provide a copy of this Certification, prior to the signing of a purchase and sale agreement for the facility served by the System or any portion thereof, to the proposed new owner.
- 6. The owner shall furnish the Department any information that the Department requests regarding the System, within 21 days of the date of receipt of that request.
- 7. By September 30th of each year, the System owner shall submit to the Department and the local approving authority an O&M checklist and a technology checklist, completed by the System operator for each inspection performed during the previous 12 months. Copies of the checklists are attached to this Certification.

V. Conditions Applicable to the Company

1. By January 31st of each year, the Company shall submit to the Department, a report, signed by a corporate officer, general partner, or Company owner that contains information on the System for the previous calendar year. The report shall state: the number of units of the System sold for use in Massachusetts during the previous year; the address of each installed System, the owner's name and address, the type of use (e.g. residential, commercial, school, institutional) and the design flow; and for all systems installed since the first issuance of Certification for General Use, all known failures, malfunctions, and corrective actions taken and the address of each such event.
2. The Company shall notify the Director of the Watershed Permitting Program at least thirty (30) days in advance of the proposed transfer of ownership of the technology for which this Certification is issued. Said notification shall include the name and address of the proposed owner containing a specific date of transfer of ownership, responsibility, coverage and liability between them. All provisions

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of this Certification applicable to the Company shall be applicable to successors and assigns of the Company, unless the Department determines otherwise.

3. The Company shall furnish the Department any information that the Department requests regarding the System, within 21 days of the date of receipt of that request.
4. Prior to its sale of the System, the Company shall provide the purchaser with a copy of this Certification. In any contract for distribution or sale of the System, the Company shall require the distributor or seller to provide the purchaser of the System, prior to any sale of the System, with a copy of this Certification.
5. If the Company wishes to continue this Certification after its expiration date, the Company shall apply for and obtain a renewal of this Certification. The Company shall submit a renewal application at least 180 days before the expiration date of this Certification, unless written permission for a later date has been granted in writing by the Department.
6. At the time of the sale of the System, the Company shall provide the purchaser of the System with an installation manual.

VI. Reporting

1. All notices and documents required to be submitted to the Department by this Certification shall be submitted to:

Director
Watershed Permitting Program
Department of Environmental Protection
One Winter Street - 6th floor
Boston, Massachusetts 02108

VII. Rights of the Department

1. The Department may suspend, modify or revoke this Certification for cause, including, but not limited to, noncompliance with the terms of this Certification, non-payment of any annual compliance assurance fee, for obtaining the Certification by misrepresentation or failure to disclose fully all relevant facts or any change in or discovery of conditions that would constitute grounds for discontinuance of the Certification, or as necessary for the protection of public health, safety, welfare, or the environment, and as authorized by applicable law. The Department reserves its rights to take any enforcement action authorized by law with respect to this Certification and/or the System against the owner, or operator of the System, and/or the Company.

VIII. Expiration date

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1. Notwithstanding the expiration date of this Certification, any System sold and installed prior to the expiration date of this Certification, and approved, installed and maintained in compliance with this Certification (as it may be modified) and 310 CMR 15.000, may remain in use unless the Department, the local approval authority, or a court requires the System to be modified or removed, or requires discharges to the System to cease.

W012530_FAST Bio-Microbics Cert. for Gen. Use